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January 27, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Reclamation Hydrologist

RE: Permit Application Package Round 3, West Ridge Resources, Inc., West Ridge Mine, PRO/007/041, Folder #2, Carbon County, Utah.

SUMMARY:

West Ridge Resources, Inc., has submitted a permit application package to mine coal in the Book Cliffs north of East Carbon and proposed surface facilities will be located in C Canyon. The application includes an experimental practice proposal to bury rather than salvage topsoil in portions of the proposed disturbed area. The applicant submitted a third version of the plan to address the issues identified in the previous Technical Analyses. Significant changes were made to the sedimentation pond and operations pad drainage. Deficiencies previously identified were addressed however; some deficience result from the changes to the drainage plan.

ANALYSIS:

Because there are few deficiencies, this review will itemize remaining issues, allow the applicant to finalize the plan and, then a final T.A. will be compiled.

- The watershed area UA-15 is not equal to the drainage area shown on map 7-2. This area would represent the same area identified in the previous map as UA-16 plus UAZb, however the current values are the same as UA-16 alone. Although map 7-2 watershed area UA-15 (1/6/99) miss-represents the area used in designs for the drainage, the area that is included in the design does represent the drainage area directly above the disturbed area. Likewise the adjacent area not included in the design is beyond the permitted disturbed area.

- Watershed maps, and watershed areas draining toward the sediment pond are not accurate at ASCA's X, Y and Z. The sedimentation pond design capacity is 7.67 acre

feet at the pond spillway. The run off volume of 7.05 acre feet for a 10 yr 24 hr event was calculated but, has some minor errors. First, a small addition error was noted in Table 4 regarding the runoff volume to the sedimentation pond. Second, runoff from the downstream portions from ASCA X and Y and adjacent watershed areas are not calculated in the pond and drainage designs. In addition, ASCA X and ASCA Y have two construction options. The second option reduces the mine-yard area and if, implemented eliminates the error at ASCA X and ASCA Y. Even so, the excess pond volume and the disturbed area which is delineated as extending beyond the proposed cut slopes should provide a buffer and adequate pond capacity.

- This pond is designed so the maximum extent the water can be impounded above the upstream toe is 16.5 ft in cell A to the primary spillway and 18.5 feet to the embankment crest. The section on page 7-35 states there is a potential 14 ft impounded above the upstream toe in Cell B this is not the maximum elevation.

- Sediment will be distributed in both sediment pond cells. Drainage to the lower cell is transported from the county road and the coal stockpile area therefore, sedimentation volumes and markers are also needed in the lower cell. The calculation for sediment yield appears to be estimated using a metric ton rather than a U.S. ton. The maximum sediment volume therefore, is slightly less than a 3 year estimate. The applicant has committed to clean out the pond at the 60% clean-out level and meets minimum requirements for sediment storage. The annual report survey will also track accumulations in the ponds.

RECOMMENDATION:

At a minimum the following should be provided prior to approval:

Findings:

R645-301-742.221.31. The sedimentation pond needs to provide sediment markers and sediment volumes for the lower pond.

R645-301-521.150. The drainage associated with ASCA-Z needs to be corrected.

The remaining issues can be corrected and adjusted following site construction.